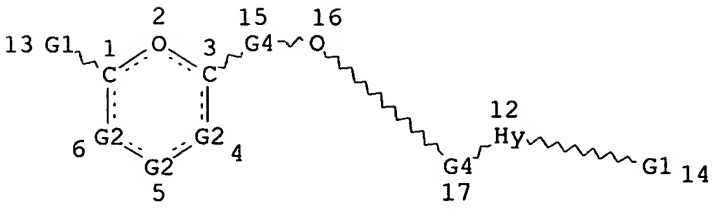
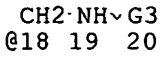
Claim 1 (Formula 1)

Krishnan 10/004,481 May 27, 2003

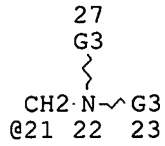
Zero hits

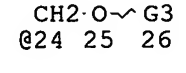
```
=> d que
L18                 STR
```

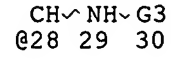


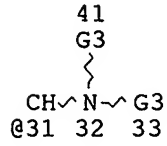


Ak @43

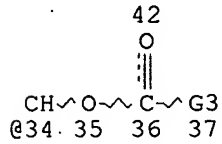


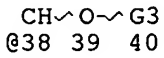




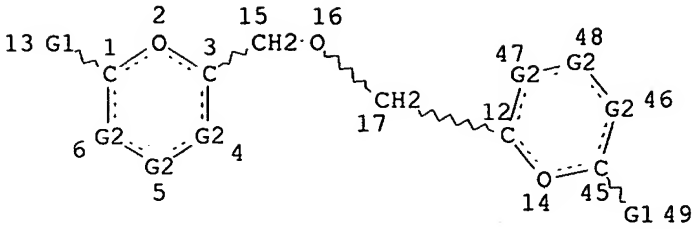


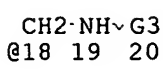
Cb @44



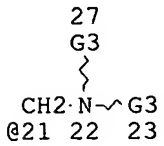


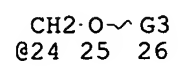

```
VAR G1=CH3/18/21/24
VAR G2=CH2/28/31/34/38
VAR G3=43/44
REP G4=(0-1) CH2
NODE ATTRIBUTES:
CONNECT IS E1  RC AT  43
CONNECT IS E1  RC AT  44
DEFAULT MLEVEL IS ATOM
GGCAT   IS MCY  SAT  AT  12
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS X5 C  E1 O  AT  12
ECOUNT  IS X8 C  AT  43
ECOUNT  IS X8 C  AT  44

GRAPH ATTRIBUTES:
RSPEC   3
NUMBER OF NODES IS  39

STEREO ATTRIBUTES: NONE
L20      123268 SEA FILE=REGISTRY ABB=ON  PLU=ON  2 OC5/ES OR (OC4/ES AND
                OC5/ES)
L22        1680 SEA FILE=REGISTRY SUB=L20 SSS FUL L18
L23             STR
```

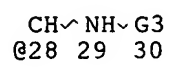


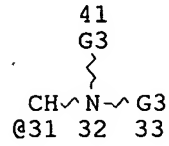


Ak @43

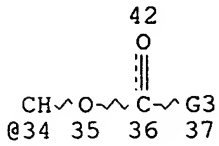


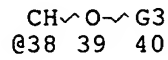






Cb @44





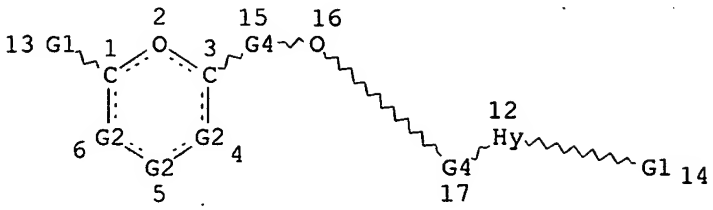
VAR G1=CH3/18/21/24
VAR G2=CH2/28/31/34/38
VAR G3=43/44
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 43
CONNECT IS E1 RC AT 44
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS X8 C AT 43
ECOUNT IS X8 C AT 44

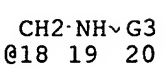
GRAPH ATTRIBUTES:
RSPEC 3
NUMBER OF NODES IS 44

STEREO ATTRIBUTES: NONE
L24 0 SEA FILE=REGISTRY SUB=L22 SSS FUL L23

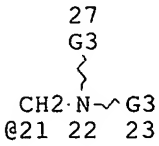
Claim 1 (Formula 2)

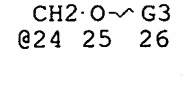
=> d que
L18 STR

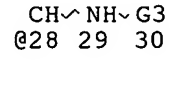


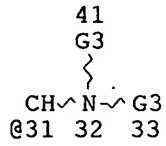


Ak @43

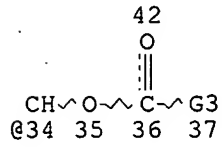


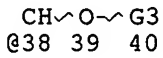






Cb @44

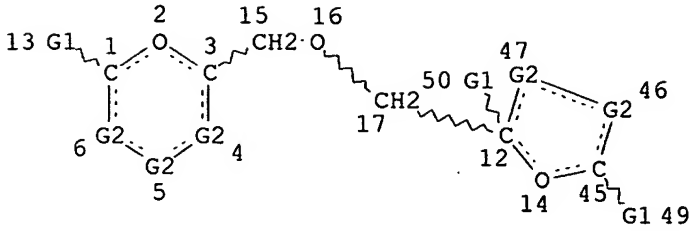


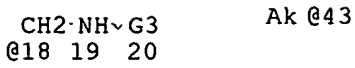


VAR G1=CH3/18/21/24
VAR G2=CH2/28/31/34/38
VAR G3=43/44
REP G4=(0-1) CH2
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 43
CONNECT IS E1 RC AT 44
DEFAULT MLEVEL IS ATOM
GGCAT IS MCY SAT AT 12
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS X5 C E1 O AT 12
ECOUNT IS X8 C AT 43
ECOUNT IS X8 C AT 44

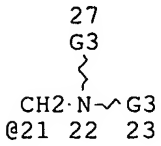
GRAPH ATTRIBUTES:
RSPEC 3
NUMBER OF NODES IS 39

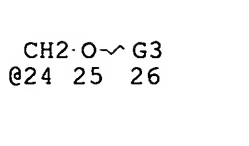
STEREO ATTRIBUTES: NONE
L20 123268 SEA FILE=REGISTRY ABB=ON PLU=ON 2 OC5/ES OR (OC4/ES AND OC5/ES)
L22 1680 SEA FILE=REGISTRY SUB=L20 SSS FUL L18
L25 STR

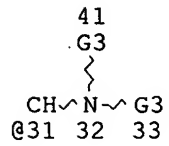




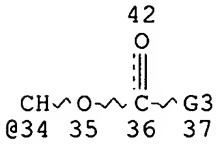
Ak @43

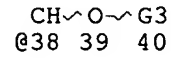






Cb @44





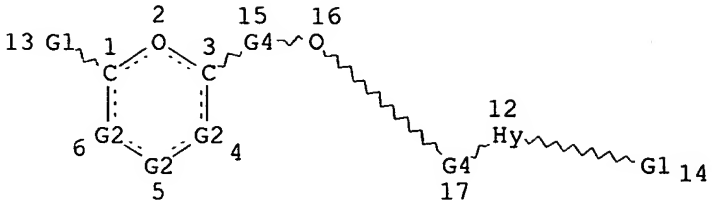
VAR G1=CH3/18/21/24
VAR G2=CH2/28/31/34/38
VAR G3=43/44
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 43
CONNECT IS E1 RC AT 44
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS X8 C AT 43
ECOUNT IS X8 C AT 44

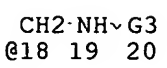
GRAPH ATTRIBUTES:
RSPEC 46 3
NUMBER OF NODES IS 44

STEREO ATTRIBUTES: NONE
L27 0 SEA FILE=REGISTRY SUB=L22 SSS FUL L25

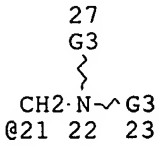
Claim 1 (Formula 3+4) + text (Claims 9-20)

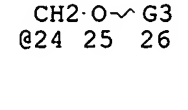

```
=> d que
L18                 STR
```

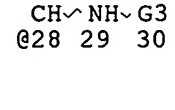


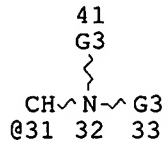


Ak @43

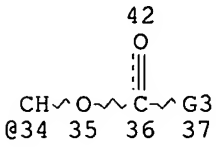


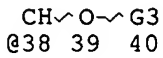




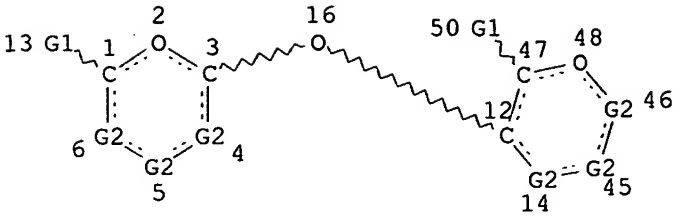


Cb @44



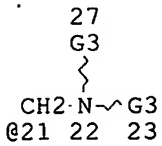



```
VAR G1=CH3/18/21/24
VAR G2=CH2/28/31/34/38
VAR G3=43/44
REP G4=(0-1) CH2
NODE ATTRIBUTES:
CONNECT IS E1  RC AT  43
CONNECT IS E1  RC AT  44
DEFAULT MLEVEL IS ATOM
GGCAT   IS MCY  SAT  AT  12
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS X5 C  E1 O  AT  12
ECOUNT  IS X8 C  AT  43
ECOUNT  IS X8 C  AT  44

GRAPH ATTRIBUTES:
RSPEC   3
NUMBER OF NODES IS  39

STEREO ATTRIBUTES: NONE
L20      123268 SEA FILE=REGISTRY ABB=ON  PLU=ON  2 OC5/ES OR (OC4/ES AND
                OC5/ES)
L22        1680 SEA FILE=REGISTRY SUB=L20 SSS FUL L18
L28             STR
```



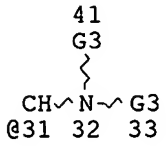
CH2-NH~G3
@18 19 20

Ak @43

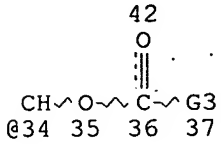


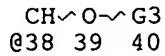
CH2-O~G3
@24 25 26

CH~NH~G3
@28 29 30



Cb @44



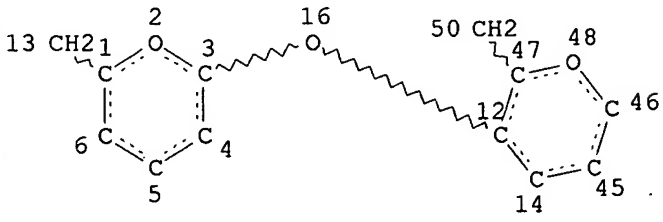


VAR G1=CH3/18/21/24
VAR G2=CH2/28/31/34/38
VAR G3=43/44
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 43
CONNECT IS E1 RC AT 44
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS X8 C AT 43
ECOUNT IS X8 C AT 44

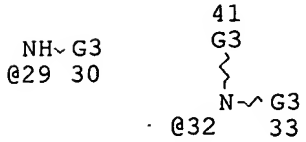
GRAPH ATTRIBUTES:
RSPEC 3
NUMBER OF NODES IS 42

STEREO ATTRIBUTES: NONE
L29 100 SEA FILE=REGISTRY SUB=L22 SSS FUL L28
L33 STR

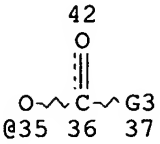
Ak @43 Cb @44



O~G3
@25 26



G1 51



VAR G1=25/29/32/35

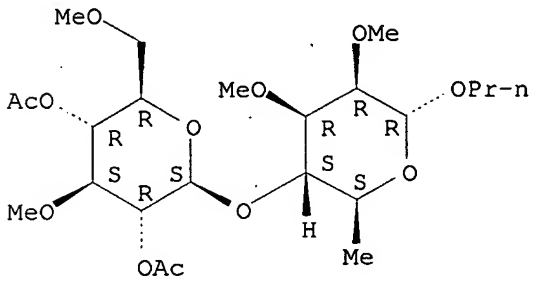
```
VAR G3=43/44
NODE ATTRIBUTES:
CONNECT IS E1  RC AT  43
CONNECT IS E1  RC AT  44
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS X8 C  AT  43
ECOUNT  IS X8 C  AT  44

GRAPH ATTRIBUTES:
RSPEC   3
NUMBER OF NODES IS  29

STEREO ATTRIBUTES: NONE
L34           98 SEA FILE=REGISTRY SUB=L29 SSS FUL L33
L35           93 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L34
L41           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L35 AND (LIPID OR PROTEIN OR
                 PEPTIDE OR HORMONE OR SACCHARIDE OR NUCLEIC ACID OR GROWTH
                 FACTOR OR INSULIN OR MONOCLON? OR INTERFERON OR INTERLEUKIN OR
                 CYTOKINE OR IMMUNOGENIC)
L42       153224 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DRUG DELIVERY SYSTEMS+OLD,NT/C
                 T
L43            0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L35 AND L42
L44           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L41 OR L43


=> d ibib abs hitind hitstr l44 1-12

L44  ANSWER 1 OF 12  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         1998:623059  HCAPLUS
DOCUMENT NUMBER:          129:302773
TITLE:                    Synthesis and NMR analysis of 13C-labeled
                          oligosaccharides corresponding to the major glycolipid
                          from Mycobacterium leprae
AUTHOR(S):                Wu, Ximao; Marino-Albernas, Jose-R.; Auzanneau,
                          France-Isabelle; Verez-Bencomo, Vicente; Pinto, B.
                          Mario
CORPORATE SOURCE:         Department of Chemistry, Simon Fraser University,
                          Burnaby, BC, V5A 1S6, Can.
SOURCE:                   Carbohydrate Research (1998), 306(4), 493-503
                          CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER:                Elsevier Science Ltd.
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   An improved synthesis of Pr 4-O-(3,6-di-O-methyl-.beta.-D-glucopyranosyl)-
     2,3-di-O-methyl-.alpha.-L-rhamnopyranoside, a disaccharide corresponding
     to the phenolic glycolipid of Mycobacterium leprae using a
     trichloroacetimidate as a glycosyl donor is described.  The synthetic
     strategy is also applied to the prepn. of three corresponding disaccharide
     analogs contg. 13C-labeled Me groups.  The prepn. of the trisaccharide, Pr
     2-O-[4-O-(3,6-di-O-methyl-.beta.-D-glucopyranosyl)-2,3-di-O-methyl-.alpha.-
     L-rhamnopyranosyl]-3-O-methyl-.alpha.-L-rhamnopyranoside is also reported.
     The di- and tri-saccharides were characterized by 1H and 13C NMR
     spectroscopy.
CC   33-4 (Carbohydrates)
IT   39687-52-0P   89821-78-3P   102717-49-7P   121423-37-8P   214402-93-4P
     214402-94-5P   214402-95-6P   214402-96-7P   214402-97-8P   214402-98-9P
```

214402-99-0P 214403-00-6P 214403-01-7P 214403-02-8P
214403-03-9P 214403-04-0P 214403-05-1P
214403-06-2P 214403-10-8P 214403-11-9P 214403-12-0P
214403-13-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and NMR anal. of 13C-labeled oligosaccharides corresponding to the major glycolipid from Mycobacterium leprae)

IT **214403-03-9P 214403-04-0P 214403-05-1P**
214403-06-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and NMR anal. of 13C-labeled oligosaccharides corresponding to the major glycolipid from Mycobacterium leprae)

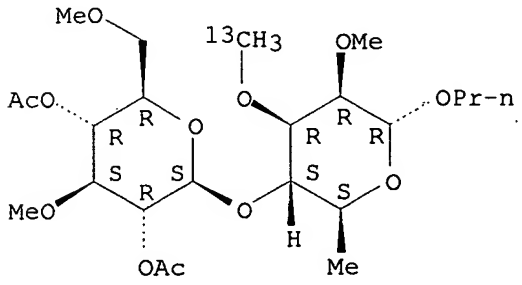
RN 214403-03-9 HCAPLUS
CN .alpha.-L-Mannopyranoside, propyl 6-deoxy-4-O-(2,4-di-O-acetyl-3,6-di-O-methyl-.beta.-D-glucopyranosyl)-2,3-di-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



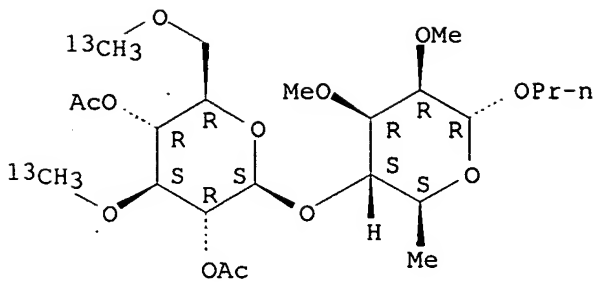
RN 214403-04-0 HCAPLUS
CN .alpha.-L-Mannopyranoside, propyl 6-deoxy-4-O-(2,4-di-O-acetyl-3,6-di-O-methyl-.beta.-D-glucopyranosyl)-2-O-methyl-3-O-(methyl-13C)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



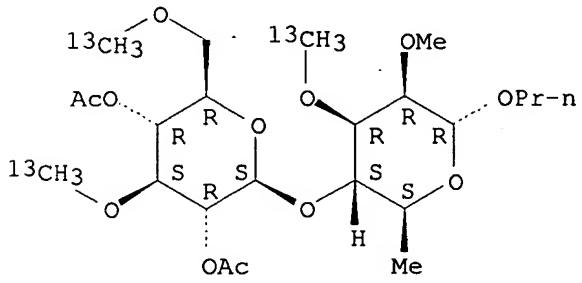
RN 214403-05-1 HCAPLUS
CN .alpha.-L-Mannopyranoside, propyl 6-deoxy-4-O-[2,4-di-O-acetyl-3,6-di-O-(methyl-13C)-.beta.-D-glucopyranosyl]-2,3-di-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 214403-06-2 HCAPLUS
CN .alpha.-L-Mannopyranoside, propyl 6-deoxy-4-O-[2,4-di-O-acetyl-3,6-di-O-(methyl-13C)-.beta.-D-glucopyranosyl]-2-O-methyl-3-O-(methyl-13C)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:449045 HCAPLUS
DOCUMENT NUMBER: 117:49045
TITLE: Thermal degradation of glycosides. VI. Hydrothermolysis of cardenolide and flavonoid glycosides
AUTHOR(S): Kim, Youn Chul; Higuchi, Ryuichi; Komori, Tetsuya
CORPORATE SOURCE: Fac. Pharm. Sci., Kyushu Univ., Fukuoka, 812, Japan
SOURCE: Liebigs Annalen der Chemie (1992), (6), 575-9
CODEN: LACHDL; ISSN: 0170-2041
DOCUMENT TYPE: Journal
LANGUAGE: English
AB On heating with water or aq. dioxane, cardenolide and flavonoid glycosides are converted into their aglycons and partially hydrolyzed products, together with **saccharide** moieties. The glycosidic linkage of 2-deoxy sugar moieties in cardenolide glycosides is more readily cleaved by thermal hydrolysis than that of the common sugar moieties. Therefore on thermal hydrolysis, odoroside K, a uzarigenin triglycoside bearing a 2-deoxy sugar moiety directly attached to the aglycon, is selectively cleaved at the sugar-aglycon linkage.
CC 33-3 (Carbohydrates)
IT 16479-50-8P 18404-43-8P 67335-77-7P **139759-40-3P**

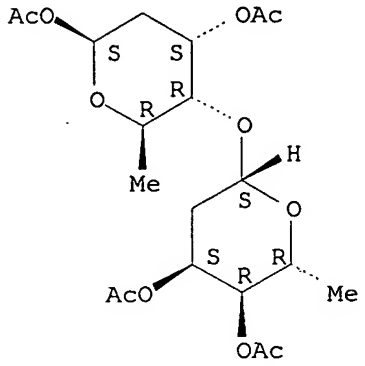
139759-41-4P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in thermal hydrolysis of digitoxin)

IT **139759-40-3P**
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in thermal hydrolysis of digitoxin)

RN 139759-40-3 HCAPLUS

CN .beta.-D-ribo-Hexopyranose, 2,6-dideoxy-4-O-(3,4-di-O-acetyl-2,6-dideoxy-.beta.-D-ribo-hexopyranosyl)-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L44 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1986:564192 HCAPLUS

DOCUMENT NUMBER: 105:164192

TITLE: Combined liquid chromatography-mass spectrometry for microscale structural studies of carbohydrates

AUTHOR(S): Hsu, Fong Fu; Edmonds, Charles G.; McCloskey, James A.

CORPORATE SOURCE: Dep. Med. Chem., Univ. Utah, Salt Lake City, UT, 84112, USA

SOURCE: Analytical Letters (1986), 19(11-12), 1259-71
CODEN: ANALBP; ISSN: 0003-2719

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Combined HPLC-thermospray mass spectrometry of mono- and disaccharides, 1-O-methylglycosides, and O-permethyl mono- through tetrasaccharides was studied to assess the potential role of thermospray ionization for microscale structural studies of **saccharides** and glycoconjugates, and for high-sensitivity detection of liq. chromatog. effluents. Using NH_4CO_2H as eluent for reversed-phase HPLC, abundant MNH_4^+ ions are formed from monosaccharides and mono- and permethylated **saccharides**, and are suitable for monitoring sub-nanogram constituents in HPLC effluents. Detection of 100 pg (0.5 pmol) of 1-O-methylhexopyranosides with signal/noise >10 is demonstrated.

CC 80-4 (Organic Analytical Chemistry)
Section cross-reference(s): 33

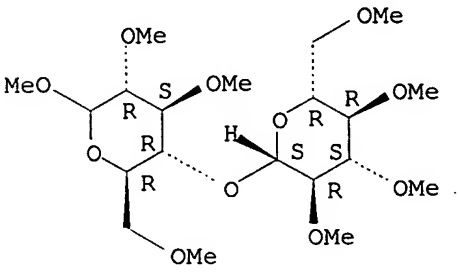
IT 69-79-4 97-30-3 99-20-7 499-40-1 528-50-7 534-46-3 554-91-6 617-04-9 **1633-36-9** 1724-14-7 2140-29-6 **2874-27-3** 3396-99-4 4117-96-8 5346-73-6 14168-89-9 25018-29-5 32581-46-7 34980-39-7 38948-17-3 56247-29-1 104514-05-8 104514-06-9 104537-76-0 **104537-77-1** 104596-66-9 104596-67-0

RL: PRP (Properties); ANST (Analytical study)
(HPLC-mass spectrometry of, with thermospray ionization)

IT **1633-36-9 2874-27-3 104537-77-1**
RL: PRP (Properties); ANST (Analytical study)
(HPLC-mass spectrometry of, with thermospray ionization)

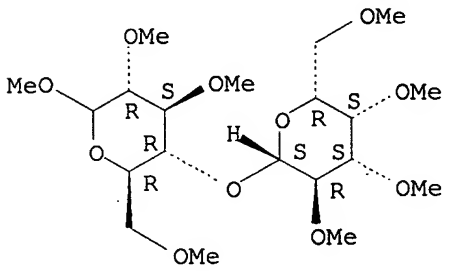
RN 1633-36-9 HCAPLUS
CN D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2874-27-3 HCAPLUS
CN D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-galactopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 104537-77-1 HCAPLUS

L44 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1984:137058 HCAPLUS
DOCUMENT NUMBER: 100:137058
TITLE: Chemical synthesis and serology of disaccharides and trisaccharides of phenolic glycolipid antigens from the leprosy bacillus and preparation of a disaccharide **protein** conjugate for serodiagnosis of leprosy
AUTHOR(S): Fujiwara, Tsuyoshi; Hunter, Shirley W.; Cho, Sang Nae; Aspinall, Gerald O.; Brennan, Patrick J.
CORPORATE SOURCE: Dep. Chem., York Univ., Downsview, ON, M3J 1P3, Can.
SOURCE: Infection and Immunity (1984), 43(1), 245-52
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The structural requirements within the species-specific 3,6-di-O-methyl-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2,3-di-O-methyl-

.alpha.-L-rhamnopyranosyl-(1.fwdarw.2)-3-O-methyl-.alpha.-L-rhamnopyranose unit of the phenolic glycolipid I antigen of Mycobacterium leprae for binding to anti-glycolipid IgM from human leprosy sera were examd. Chem. defined, partially deglycosylated fragments of phenolic glycolipid I, 2 other minor M. leprae-specific phenolic glycolipids (those contg. 6-O-methyl-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2,3-di-O-methyl-.alpha.-L-rhamnopyranosyl-(1.fwdarw.2)-3-O-methyl-.alpha.-L-rhamnopyranose and 3,6-di-O-methyl-.beta.-D-glucopyranosyl-(1.fwdarw.4)-3-O-methyl-.alpha.-L-rhamnopyranosyl-(1.fwdarw.2)-3-O-methyl-.alpha.-L-rhamnopyranose units), and phenolic glycolipids from other mycobacteria were used. Addnl., the trisaccharide of phenolic glycolipid I, the 3,6-di-O-methyl-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2,3-di-O-methyl-.alpha.-L-rhamnopyranose, the 6-O-methyl-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2,3-di-O-methyl-.alpha.-L-rhamnopyranose, and the .beta.-D-glucopyranosyl-(1.fwdarw.4)-2,3-di-O-methyl-.alpha.-L-rhamnopyranose disaccharides were synthesized and characterized, and their activities were examd. Only the phenolic glycolipids contg. 3,6-di-O-methyl-.beta.-D-glucopyranosyl at the nonreducing terminus were efficient in binding the anti-glycolipid IgM, and the 3,6-di-O-methyl-.beta.-D-glucopyranosyl-contg. di- and trisaccharides were the most effective in inhibiting this binding. Thus, the 3,6-di-O-methyl-.beta.-D-glucopyranosyl substituent was recognized as the primary antigen determinant in phenolic glycolipid I. With this information, bovine serum albumin contg. reductively aminated 3,6-di-O-methyl-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2,3-di-O-methyl-L-rhamnose was prepd. and shown to be highly active in the serodiagnosis of leprosy.

CC 15-2 (Immunochemistry)

ST **saccharide** prepn glycolipid antigen Mycobacterium leprae; leprosy diagnosis **saccharide** glycolipid

IT Antigens
RL: BIOL (Biological study)
(determinants, **saccharides** of phenolic glycolipids of Mycobacterium leprae as)

IT Mycobacterium leprae
(**saccharides** of phenolic glycolipids of, prepn. of, as antigenic determinants)

IT Glycolipids
RL: PREP (Preparation)
(**saccharides** of phenolic, of Mycobacterium leprae, prepn. of, as antigenic determinants)

IT Molecular structure-biological activity relationship
(antibody-binding, of **saccharides** of phenolic glycolipids of Mycobacterium leprae)

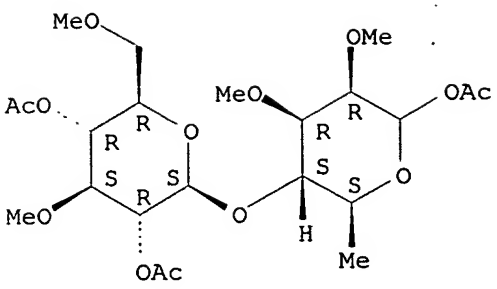
IT **89316-02-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with titanium bromide)

IT **89316-02-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with titanium bromide)

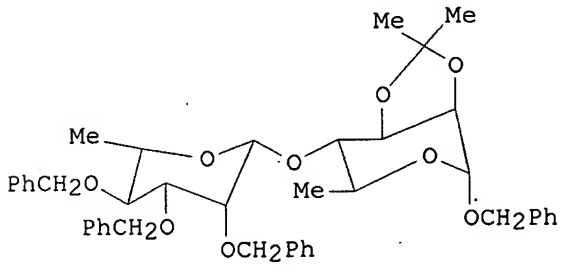
RN 89316-02-9 HCAPLUS

CN L-Mannopyranose, 6-deoxy-4-O-(2,4-di-O-acetyl-3,6-di-O-methyl-.beta.-D-glucopyranosyl)-2,3-di-O-methyl-, acetate (9CI) (CA INDEX NAME)

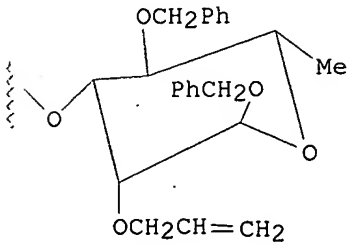
Absolute stereochemistry.



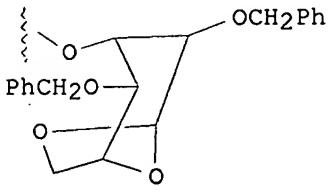
L44 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1982:20397 HCAPLUS
DOCUMENT NUMBER: 96:20397
TITLE: Building units of oligosaccharides. XXXIII. Synthesis of .beta.-glycosidically linked disaccharides of L-rhamnose
AUTHOR(S): Paulsen, Hans; Kutschker, Wolfram; Lockhoff, Oswald
CORPORATE SOURCE: Inst. Org. Chem. Biochem., Univ. Hamburg, Hamburg, D-2000/13, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1981), 114(10), 3233-41
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
GI



I



II

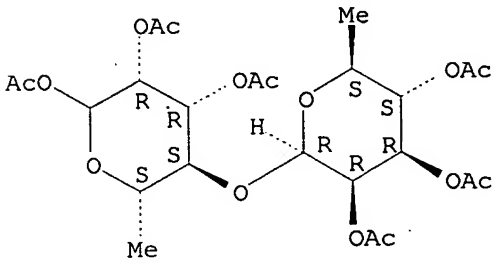


III

AB 2,3,4-Tri-O-benzyl-.alpha.-L-rhamnopyranosyl bromide is a reactive halogenose which in the presence of a Ag silicate catalyst reacts with **saccharides** contg. a reactive hydroxyl group to give a .beta.-glycosidically linked disaccharide with good selectivity. The disaccharides of L-rhamnose I, II and III were prepd. in this way with either L-rhamnose or D-galactose as hydroxyl group component. Subsequent

deprotection gave the free disaccharides.
CC 33-4 (Carbohydrates)
IT 71164-86-8P **75828-91-0P** 77777-85-6P 80153-00-0P
80153-10-2P 80153-11-3P 80153-12-4P 80153-14-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT **75828-91-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 75828-91-0 HCAPLUS
CN L-Mannopyranose, 6-deoxy-4-O-(2,3,4-tri-O-acetyl-6-deoxy-.beta.-L-mannopyranosyl)-, triacetate (9CI) (CA INDEX NAME)

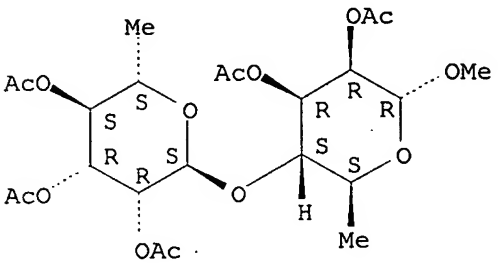
Absolute stereochemistry.



L44 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:615680 HCAPLUS
DOCUMENT NUMBER: 89:215680
TITLE: Synthesis and NMR study of disaccharides and trisaccharides in the L-rhamnose series
AUTHOR(S): Laffite, Colette; Nguyen Phuoc Du, Anne Marie; Winternitz, Francois; Wylde, Renee; Pratviel-Sosa, Flore
CORPORATE SOURCE: CNRS, Fr.
SOURCE: Carbohydrate Research (1978), 67(1), 91-103
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: French
AB Various di- and tri-**saccharides** contg. L-rhamnose were synthesized by condensation of 2,3,4-tri-O-acetyl- or 2,3,4-tri-O-benzoyl-.alpha.-L-rhamnopyranosyl bromide with an unblocked glycopyranoside. The detn. of the anomeric configuration of L-rhamnose **saccharides** by NMR is difficult because structure has a greater effect on the spectra than does configuration. The .alpha. and .beta. configurations and the position of the substitution may be assigned from the chem. shifts of H-5 and CH3. In all the compds. having a .beta. configuration, a shielding of the Me group and a deshielding of the H-5 proton have been obsd. as compared to the compds. having an .alpha. configuration. The H-5 proton and the Me group of peracetylated, (1 .fwdarw. 3)-linked .alpha.-L derivs. always resonate at higher fields than the corresponding protons of (1 .fwdarw. 6)-linked .alpha.-L derivs.
CC 33-3 (Carbohydrates)
Section cross-reference(s): 22
IT 5239-09-8P **53130-95-3P 53130-96-4P** 62075-51-8P
68355-17-9P 68355-18-0P 68355-20-4P 68355-23-7P 68355-31-7P

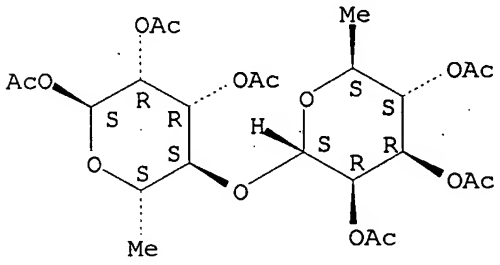
68398-80-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT **53130-95-3P 53130-96-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 53130-95-3 HCAPLUS
CN .alpha.-L-Mannopyranoside, methyl 6-deoxy-4-O-(2,3,4-tri-O-acetyl-6-deoxy-.alpha.-L-mannopyranosyl)-, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 53130-96-4 HCAPLUS
CN .alpha.-L-Mannopyranose, 6-deoxy-4-O-(2,3,4-tri-O-acetyl-6-deoxy-.alpha.-L-mannopyranosyl)-, triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L44 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1978:7244 HCAPLUS
DOCUMENT NUMBER: 88:7244
TITLE: P.M.R. studies on fully methylated disaccharides using lanthanide shift reagents: assignments of the methoxyl signals
AUTHOR(S): Streefkerk, Dirk G.; Stephen, Alistair M.
CORPORATE SOURCE: Dep. Org. Chem., Univ. Cape Town, Rondebosch, S. Afr.
SOURCE: Carbohydrate Research (1977), 57, 25-37
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The complexes of Eu(fod)3 [Eu tris(1,1,1,2,2,3,3-heptafluoro-7,7-dimethyl-4,6-octanedione] with per-O-methylated aldohexosylaldohexoses, consisting of D-glucopyranose and D-galactopyranose residues and having (1.fwdarw.2), (1.fwdarw.4), and (1.fwdarw.6) linkages were studied by using proton NMR

spectroscopy. Eu(fod)3 binds preferentially to two neighboring MeO-oxygens having an axial-equatorial relationship. Steric hindrance is a major factor in disfavoring certain sites. On the basis of Eu(fod)3 effects on the MeO groups, and the comparison of the chem. shifts of corresponding groups in the permethylated mono- and disaccharides, the signals for most of the MeO groups of the latter compds. were assigned. The shift increments of the signals for these MeO groups, with respect to those for the corresponding groups in the permethylated monomers, were related to the type and the configuration of the intersugar linkage. The potential of the shift increments for assignment purposes in other permethylated di- or higher **saccharides** is discussed.

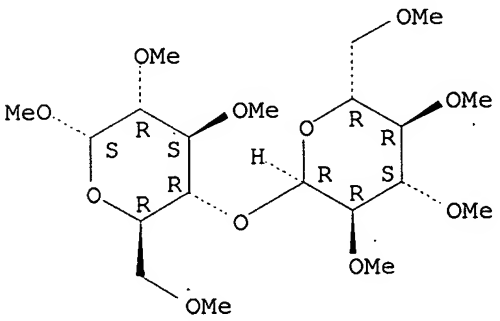
CC 33-3 (Carbohydrates)
Section cross-reference(s): 22

IT 605-81-2 1633-34-7 2296-47-1 3149-64-2 3149-65-3
19146-23-7 **19146-24-8** 37093-69-9 **37093-70-2**
37093-71-3 37093-72-4 **37427-43-3** 54548-42-4
RL: PRP (Properties)
(proton NMR spectrum of, effect of lanthanide shift reagent on)

IT **19146-23-7** **19146-24-8** **37093-70-2**
37093-71-3 **37427-43-3**
RL: PRP (Properties)
(proton NMR spectrum of, effect of lanthanide shift reagent on)

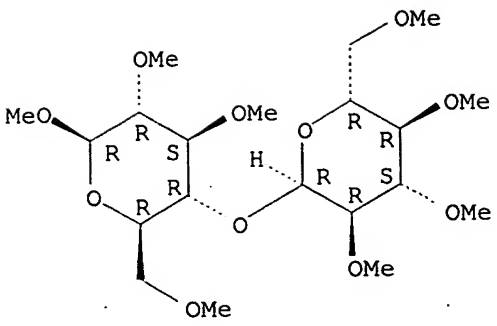
RN 19146-23-7 HCAPLUS
CN .alpha.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.alpha.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



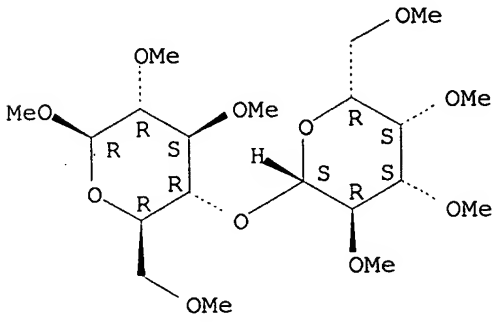
RN 19146-24-8 HCAPLUS
CN .beta.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.alpha.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



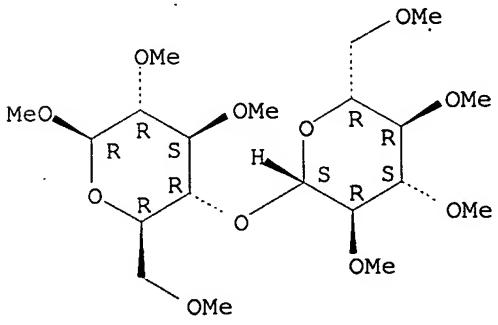
RN 37093-70-2 HCAPLUS
CN .beta.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-galactopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



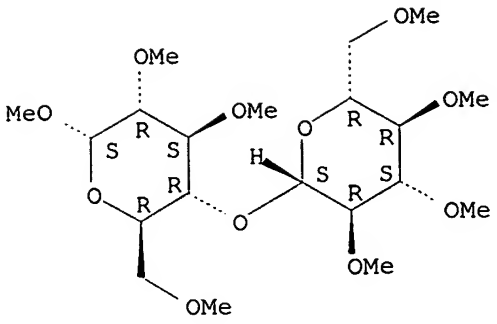
RN 37093-71-3 HCAPLUS
CN .beta.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 37427-43-3 HCAPLUS
CN .alpha.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

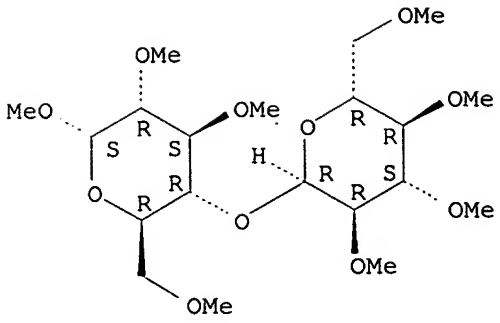


L44 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1975:4505 HCAPLUS
DOCUMENT NUMBER: 82:4505
TITLE: Carbon-13- and proton-nuclear magnetic resonance spectroscopy of permethylated disaccharides
AUTHOR(S): Haverkamp, Johan; De Bie, Marius J. A.; Vliegenthart, Johannes F. G.
CORPORATE SOURCE: Lab. Org. Chem., Univ. Utrecht, Utrecht, Neth.
SOURCE: Carbohydrate Research (1974), 37(1), 111-25
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The 13C-NMR spectra of permethylated disaccharides of D-glucose, or D-galactose, or both residues were analyzed and discussed. Peaks were assigned by correlation of the spectra of the disaccharide derivs. with those of the permethylated monomers. Large shift-increments for skeletal and methoxyl C atoms with respect to the resonance positions of corresponding atoms of the monomers, are explained in terms of steric or proximity effects. The configuration of glycosidic linkages can be deduced from the chem. shifts of the anomeric C atoms and from the 1H-NMR data of the attached H atoms.

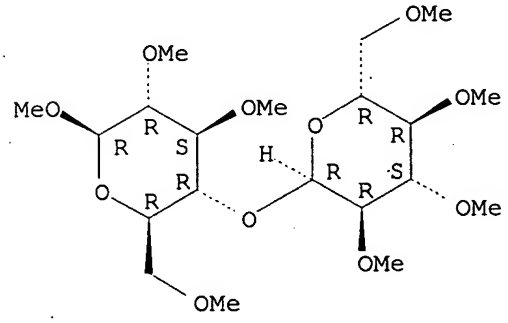
CC 33-3 (Carbohydrates)
Section cross-reference(s): 22
ST PMR permethyl disaccharide; **saccharide** permethyl PMR
IT **Saccharides**
RL: RCT (Reactant); RACT (Reactant or reagent)
(permethylated di-, PMR of)
IT 605-81-2 1633-34-7 2296-47-1 3149-64-2 3149-65-3
19146-23-7 19146-24-8 25018-29-5 37093-66-6
37093-69-9 **37093-70-2 37093-71-3** 37093-72-4
37093-73-5 **37427-43-3** 54503-58-1 54503-59-2 54548-40-2
54548-41-3 54548-42-4 54548-43-5 **54548-44-6** 54594-74-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(PMR of)
IT **19146-23-7 19146-24-8 37093-70-2**
37093-71-3 37427-43-3 54548-44-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(PMR of)
RN 19146-23-7 HCAPLUS
CN .alpha.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.alpha.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



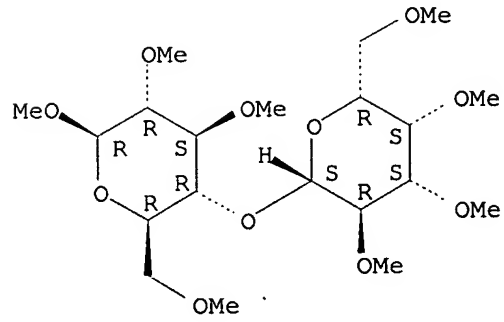
RN 19146-24-8 HCAPLUS
CN .beta.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.alpha.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



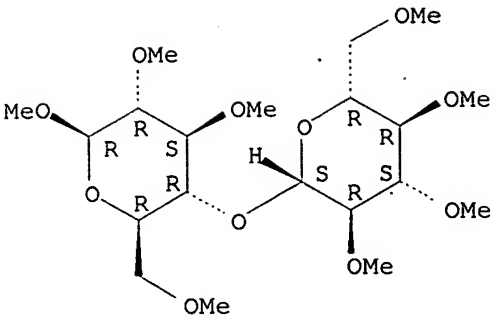
RN 37093-70-2 HCAPLUS
CN .beta.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-galactopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



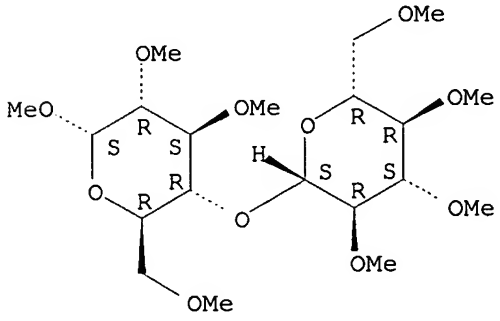
RN 37093-71-3 HCAPLUS
CN .beta.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



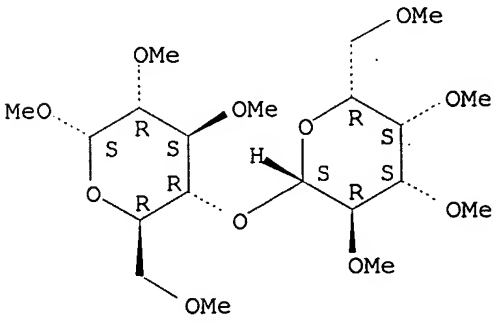
RN 37427-43-3 HCAPLUS
CN .alpha.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 54548-44-6 HCAPLUS
CN .alpha.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-galactopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L44 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1974:108773 HCAPLUS
DOCUMENT NUMBER: 80:108773
TITLE: PMR and carbon-13 NMR spectroscopy of methyl

2,3,4,6-tetra-O-methyl-.alpha.- and -.beta.-D-glucopyranoside. Application to the identification of partially methylated glucoses

AUTHOR(S): Haverkamp, J.; Van Dongen, J. P. C. M.; Vliegenthart, J. F. G.

CORPORATE SOURCE: Lab. Org. Chem., Univ. Utrecht, Utrecht, Neth.

SOURCE: Tetrahedron (1974), 29(21), 3431-9
CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The 1H and 13C magnetic resonance spectra of Me 2,3,4,6-tetra-O-methyl-.alpha.- and -.beta.-D-glucopyranoside were completely assigned by specific D and 13C labeling, spin decoupling and spectrum simulation. A partially methylated glucose degrdn. product in the permethylation anal. of a carbohydrate could be identified after permethylation with labeled Me groups and comparison of the PMR or 13C NMR spectra with those of ref. permethylglucoses. These spectra indicated the type and ring form of the monomers and the positions of the glycosidic bonds in the original oligo- or polysaccharide.

CC 33-2 (Carbohydrates)
Section cross-reference(s): 22

IT **Saccharides**
RL: RCT (Reactant); RACT (Reactant or reagent)
(mono-, NMR identification of methylated)

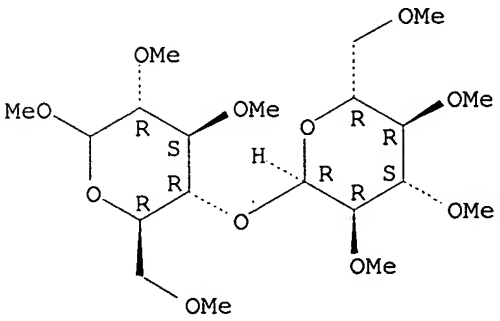
IT 1633-35-8 **24807-91-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(methanolysis of, NMR identification of permethylated products from)

IT **24807-91-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(methanolysis of, NMR identification of permethylated products from)

RN 24807-91-8 HCAPLUS

CN D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.alpha.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L44 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1972:552477 HCAPLUS

DOCUMENT NUMBER: 77:152477

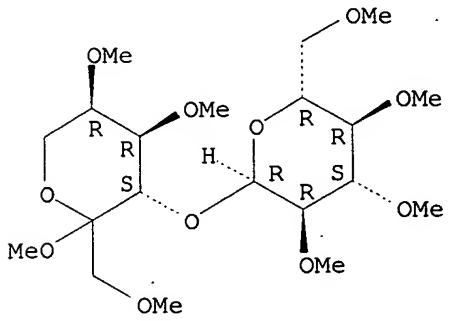
TITLE: Mass spectral studies of some fructose containing oligosaccharide permethyl ethers

AUTHOR(S): Das, K. G.; Thayumanavan, B.

CORPORATE SOURCE: Natl. Chem. Lab., Poona, India

SOURCE: Organic Mass Spectrometry (1972), 6(10), 1063-9
CODEN: ORMSBG; ISSN: 0030-493X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Mass spectrometry was used to characterize fructofuranose units connected via C-2 to another sugar. The intensity of the m/e 101 and m/e 88 ions could not be used to differentiate between furanose and pyranose ring forms in disaccharide permethyl ethers. The type of glycosidic linkage influenced the formation of these ions.
CC 33-3 (Carbohydrates)
ST oligosaccharide ether mass spectrum; **saccharide** oligo mass spectrum; fructose oligosaccharide mass spectrum; mass spectrum oligosaccharide ether
IT 5346-73-6 25018-29-5 25531-74-2 34141-00-9 38645-99-7
38646-01-4 38646-02-5 38646-05-8 38948-17-3
RL: PRP (Properties)
(mass spectrum of)
IT **38646-01-4**
RL: PRP (Properties)
(mass spectrum of)
RN 38646-01-4 HCAPLUS
CN D-Fructopyranoside, methyl 1,4,5-tri-O-methyl-2-O-(2,3,4,6-tetra-O-methyl-.alpha.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L44 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1972:475416 HCAPLUS
DOCUMENT NUMBER: 77:75416
TITLE: Proton magnetic resonance spectra of methyl ethers of disaccharides. Chemical shifts of anomeric protons
AUTHOR(S): Minnikin, D. E.
CORPORATE SOURCE: Sch. Chem., Univ. Newcastle-upon-Tyne, Newcastle-upon-Tyne, UK
SOURCE: Carbohydrate Research (1972), 23(1), 139-43
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Chem. shifts in CDCl3 and C6D6 of the interglycosidic, and the Me D-glucosidic, anomeric protons of the permethylated disaccharides .alpha.- and .beta.-cellobiose, .alpha.- and .beta.-maltose, .beta.-laminarabiose, .beta.-melibiose, .beta.-gentiobiose, .beta.-lactose, .beta.-kojibiose, and .beta.-sophorose were tabulated. Changing solvents from CDCl3 to C6D6

enabled the interglycosidic anomeric proton signals to be distinguished from those of the Me glycosidic group; the former are shifted downfield and the latter upfield. In general, the interglycosidic anomeric proton resonated at lower field than the Me glycosidic anomeric proton.

CC 33-8 (Carbohydrates)
Section cross-reference(s): 22

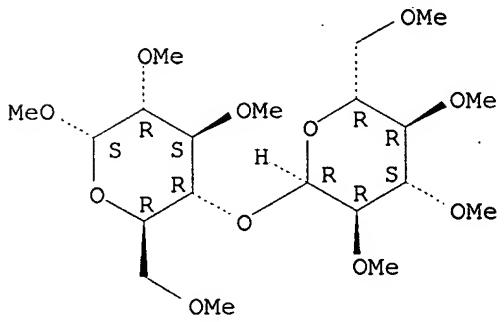
IT **Saccharides**
RL: RCT (Reactant); RACT (Reactant or reagent)
(di-, nuclear magnetic resonance of methyl ethers of)

IT 605-81-2 1633-34-7 3149-65-3 **19146-23-7 19146-24-8**
37093-69-9 **37093-70-2 37093-71-3** 37093-72-4
37093-73-5 **37427-43-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(N.M.R. of)

IT **19146-23-7 19146-24-8 37093-70-2**
37093-71-3 37427-43-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(N.M.R. of)

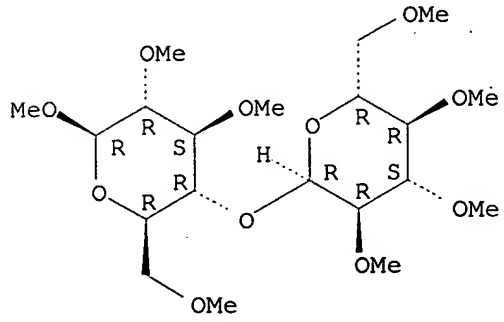
RN 19146-23-7 HCAPLUS
CN .alpha.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.alpha.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 19146-24-8 HCAPLUS
CN .beta.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.alpha.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

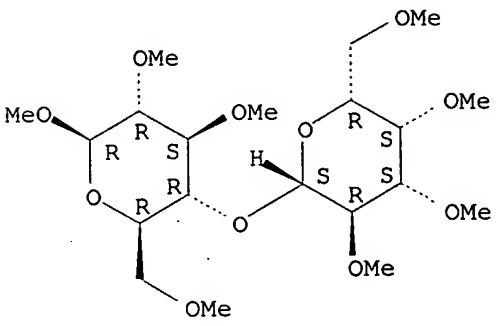
Absolute stereochemistry.



RN 37093-70-2 HCAPLUS

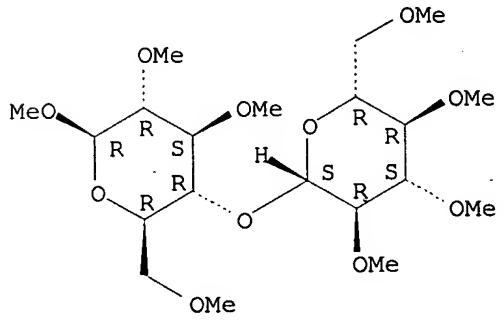
CN .beta.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-galactopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



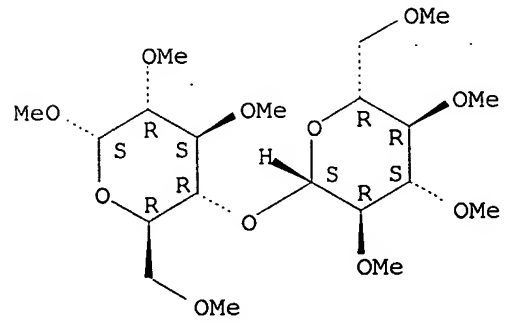
RN 37093-71-3 HCAPLUS
CN .beta.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 37427-43-3 HCAPLUS
CN .alpha.-D-Glucopyranoside, methyl 2,3,6-tri-O-methyl-4-O-(2,3,4,6-tetra-O-methyl-.beta.-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L44 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1969:106823 HCAPLUS
DOCUMENT NUMBER: 70:106823
TITLE: A New acetylbiose from steroidal glycosides of "Pei-Wujiapi"
AUTHOR(S): Shoji, Junzo; Kawanishi, Sachiko; Sakuma, Seiichi; Okino, Hiroko; Sano, Mitsuzi
CORPORATE SOURCE: Sch. Pharm. Sci., Showa Univ., Tokyo, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1968), 16(11), 2308-10
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Column chromatog. on silica gel gave 4-O-(2-O-acetyl-.beta.-D-digitalopyranosyl)-D-cymarose (I) together with methyl 4-O-(2-O-acetyl-.beta.-D-digitalopyranosyl)-.beta.-D-cymaroside (II) formed in the methanolysis of the glycoside. I (C17H30O9), m. 171.degree. (AcOEt), [.alpha.]2D3 -25.5.degree. (c 1.1, C5H5N formed an acetate, m. 116.degree., [.alpha.]2D3 -22.4.degree. (c 0.98, C5H5N). Deacetylation of I gave C15H28O8, m. 116.degree., [.alpha.]2D1 -6.7.degree. (c 0.75, C5H5N), which on Hakomori methylation gave C17H32O8, m. 106.degree., which on hydrolysis yielded cymarose and 2,4-di-O-methyl-D-digitalose. Methylation and methanolysis of I gave methyl 4-O-methyl-.alpha.-D-digitaloside indicating that position 2 in I was acetylated. In II (C16H28O9), m. 177.degree. (AcOEt-hexane), [.alpha.]2D1 -55.7.degree. (c 0.47, C5H5N), the position of the OAc group and the configuration of the glycosidic linkages were confirmed by N.M.R.

CC 33 (Carbohydrates)

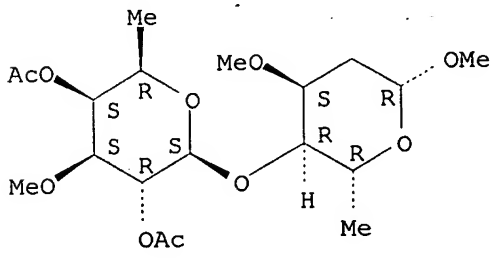
IT **Saccharides**
RL: RCT (Reactant); RACT (Reactant or reagent)
(di-, of Asclepiadaceae)

IT **23819-24-1P 23819-26-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **23819-24-1P 23819-26-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 23819-24-1 HCAPLUS
CN .beta.-D-ribo-Hexopyranoside, methyl 2,6-dideoxy-4-O-(2,4-di-O-acetyl-6-deoxy-3-O-methyl-.beta.-D-galactopyranosyl)-3-O-methyl- (9CI) (CA INDEX NAME)

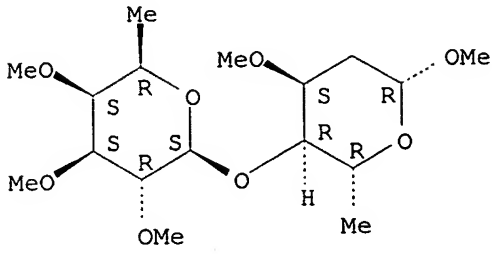
Absolute stereochemistry.



RN 23819-26-3 HCAPLUS
CN .beta.-D-ribo-Hexopyranose, methyl 2,6-dideoxy-4-O-(6-deoxy-2,3,4-tri-O-

methyl-.beta.-D-galactopyranosyl)-3-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



As is always the combination to pass emissions:

1. Change the oil and filter the morning of the test (BIG help)
2. Use fresh O2 sensor
3. Run an Emissions chip (I sell 'em for only $15 shipped)
4. Fresh, factory recommended plugs
5. Ensure EGR opertion is proper.
6. Cleaning the injectors with a pressurized solvent is also a very good idea.
7. Replace fuel filter if it is well-used.
8. Air Filter should be cleaned if using K&N style filter, otherwise replace paper filter.
9. Consider replacing PCV if it is well-used.

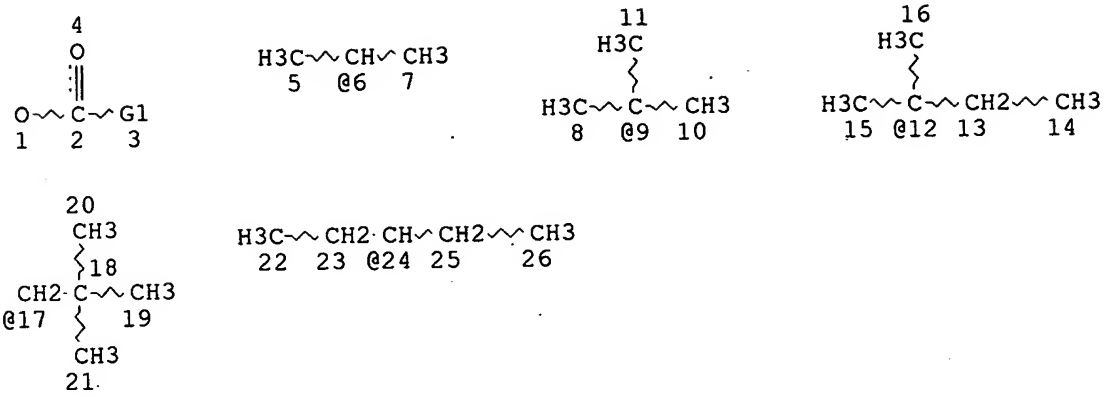
Doing the above will give you a greater than 95% chance of passing the emissions test assuming your engine mechanicals are in good order.

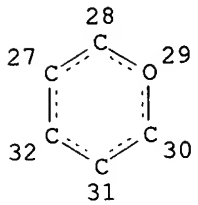
Good Luck

Scott Simpson
Extreme Automatics Test Pilot
TSM Pt. Series Director & Thrasher Chip Distributor
Scott231@gnttype.org/Scott231@Juno.com

Claim 2 (Formula) zero hits

=> d que
L7 STR

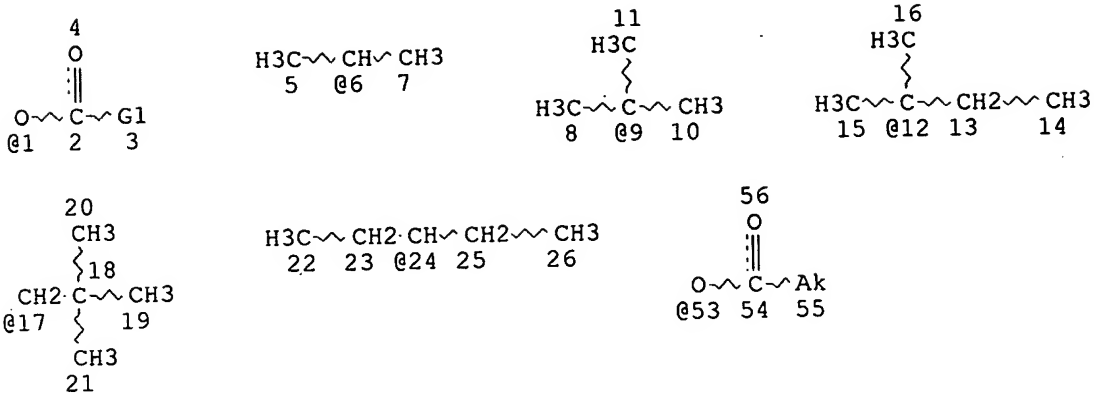




VAR G1=6/9/12/17/24
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 27
NUMBER OF NODES IS 32

STEREO ATTRIBUTES: NONE
L9 4982 SEA FILE=REGISTRY SSS FUL L7
L10 1014 SEA FILE=REGISTRY ABB=ON PLU=ON L9 AND (2 OC5/ES OR OC4/ES)
L11 STR



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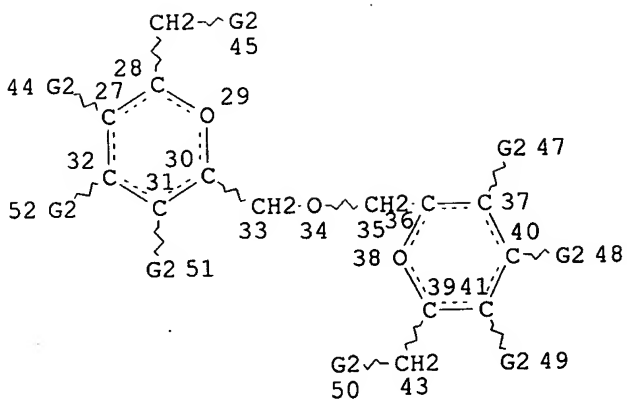
Page 1-A



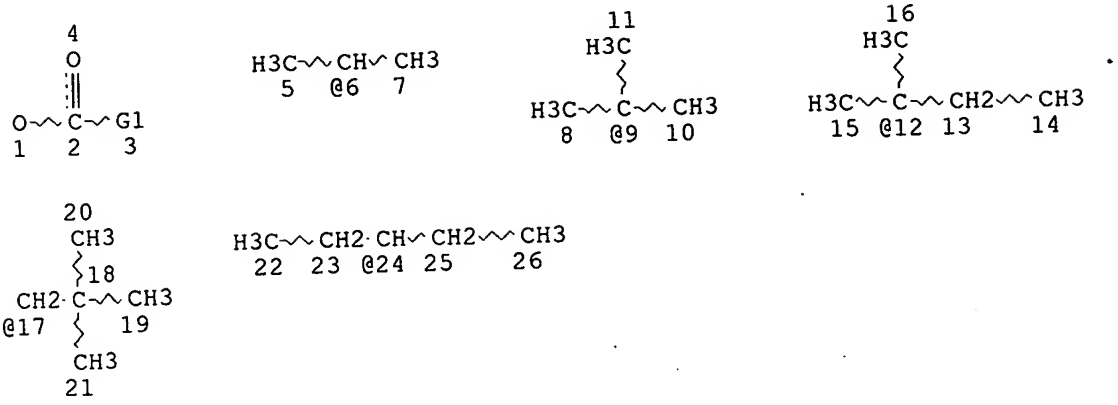
Page 2-A
VAR G1=6/9/12/17/24
VAR G2=1/53
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 55
DEFAULT MLEVEL IS ATOM
GGCAT IS LOC SAT AT 55
DEFAULT ECLEVEL IS LIMITED

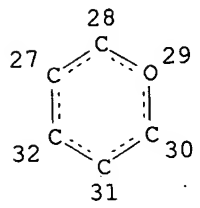
GRAPH ATTRIBUTES:
RSPEC 27 36
NUMBER OF NODES IS 55

STEREO ATTRIBUTES: NONE
L12 0 SEA FILE=REGISTRY SUB=L10 SSS FUL L11

Claim 2 (Formula 2) zero hits

=> d que
L7 STR





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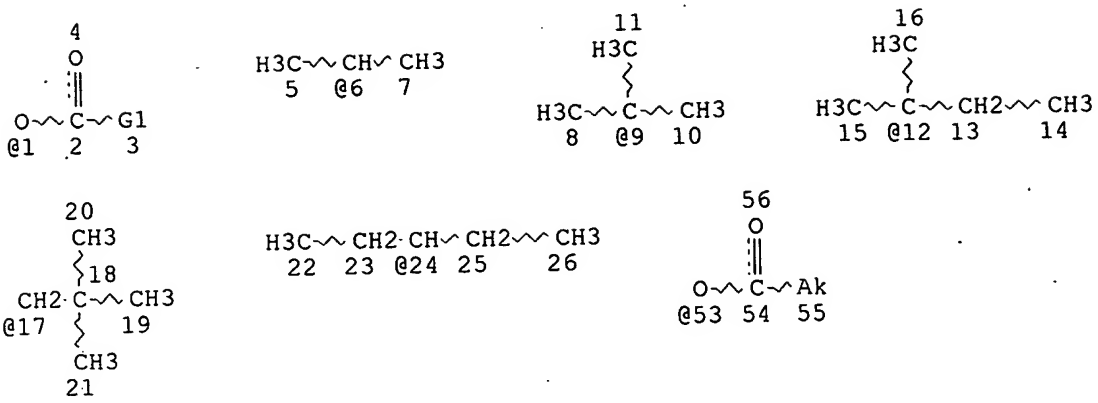
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 27
NUMBER OF NODES IS 32

STEREO ATTRIBUTES: NONE
L9 4982 SEA FILE=REGISTRY SSS FUL L7
L13 STR



42

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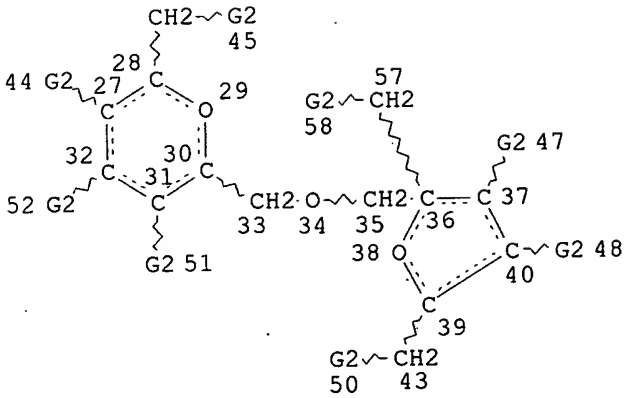

Page 2-A
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VAR G2=1/53
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DEFAULT MLEVEL IS ATOM
GGCAT IS LOC SAT AT 55
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 30
NUMBER OF NODES IS 55

STEREO ATTRIBUTES: NONE
L14 0 SEA FILE=REGISTRY SUB=L9 SSS FUL L13

Claim 2 (Formula 3+4)


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=> d que
L7                STR
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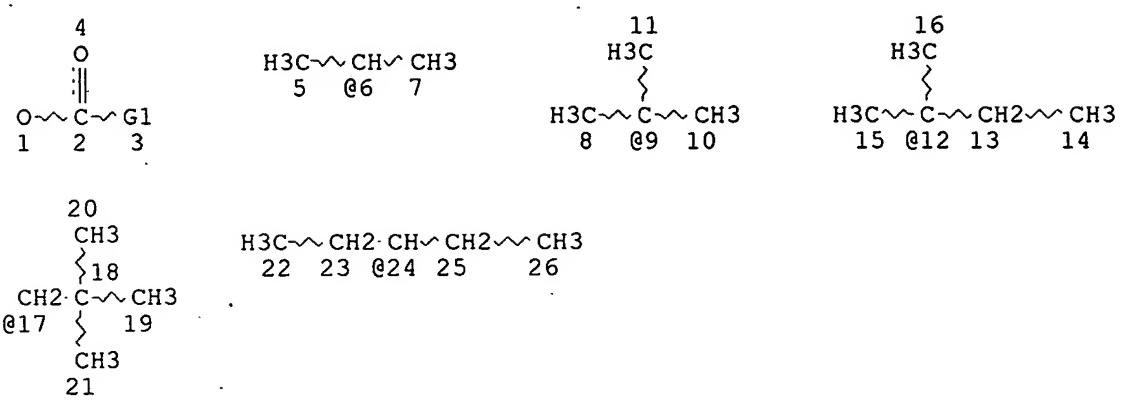

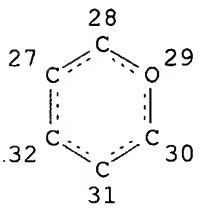


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VAR G1=6/9/12/17/24
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC  27
NUMBER OF NODES IS  32

STEREO ATTRIBUTES: NONE
L9          4982 SEA FILE=REGISTRY SSS FUL L7
L15               STR
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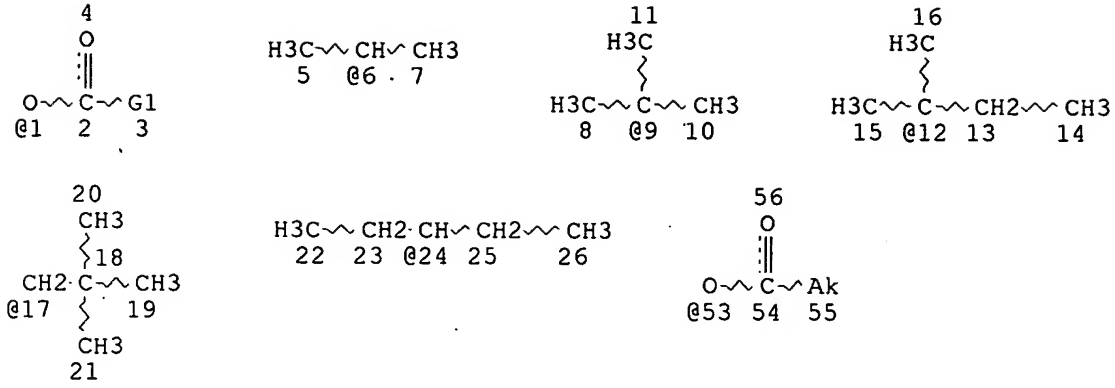
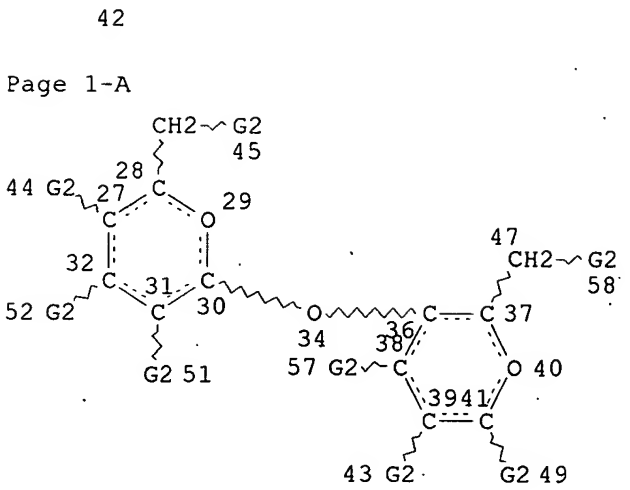




Page 1-A

Page 2-A
VAR G1=6/9/12/17/24
VAR G2=1/53
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 55
DEFAULT MLEVEL IS ATOM
GGCAT IS LOC SAT AT 55
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 39 30
NUMBER OF NODES IS 53

STEREO ATTRIBUTES: NONE
L16 8 SEA FILE=REGISTRY SUB=L9 SSS FUL L15
L17 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L16

=> d ibib abs hitstr l17 1-7

L17 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:50462 HCAPLUS
DOCUMENT NUMBER: 134:105872
TITLE: Dry powder pharmaceutical compositions containing hydrophobically-derivatized carbohydrate
INVENTOR(S): Jackson, Peter
PATENT ASSIGNEE(S): Quadrant Holdings Cambridge Limited, UK
SOURCE: PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001003673	A1	20010118	WO 2000-GB2661	20000711
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000012444	A	20020402	BR 2000-12444	20000711
EP 1194126	A1	20020410	EP 2000-948092	20000711
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003504325	T2	20030204	JP 2001-508954	20000711
US 6551622	B1	20030422	US 2000-614233	20000712

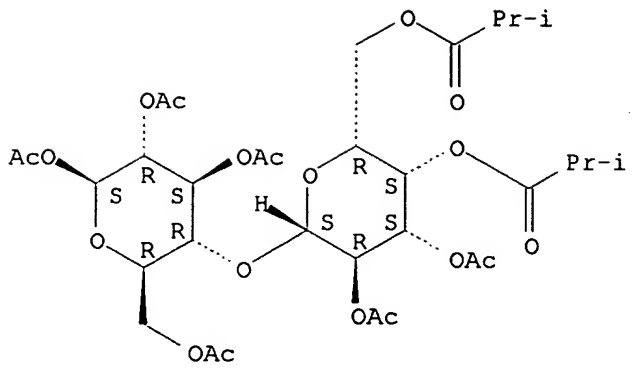
PRIORITY APPLN. INFO.: GB 1999-16316 A 19990712
WO 2000-GB2661 W 20000711

AB A hydrophilic therapeutic agent is prepd. in storage-stable form, suitable for administration to a patient. The agent is formulated with a hydrophobically-derivatized carbohydrate, making use of ion-pair formation to form a soln. of the agent and carbohydrate. An .alpha.-chymotrypsin compn. was prepd. using trehalose octaacetate.

IT **319930-25-1**
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dry powder pharmaceutical compns. contg. hydrophobically-derivatized carbohydrate)

RN 319930-25-1 HCAPLUS
CN .beta.-D-Glucopyranose, 4-O-[2,3-di-O-acetyl-4,6-bis-O-(2-methyl-1-oxopropyl)-.beta.-D-galactopyranosyl]-, tetraacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:498595 HCAPLUS
DOCUMENT NUMBER: 133:267012
TITLE: A practical process for polymer-supported synthesis
AUTHOR(S): Quiclet-Sire, B.; Wilczewska, A.; Zard, S. Z.
CORPORATE SOURCE: CNRS, Institut de Chimie des Substances Naturelles, Gif-Sur-Yette, 91198, Fr.
SOURCE: Tetrahedron Letters (2000), 41(30), 5673-5677
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:267012

AB Various complex structures can be attached to a polystyrene oligomer using the simple but powerful xanthate transfer technol.; the material obtained is sol. in many of the common org. solvents allowing further reactions under homogeneous conditions, but can be pptd. with methanol making this technique esp. suitable for conducting parallel syntheses.

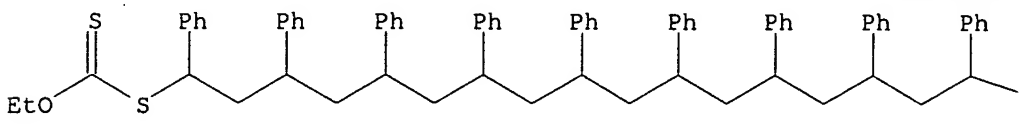
IT **298228-39-4DP**, homologs
RL: SPN (Synthetic preparation); PREP (Preparation)
(practical process for polymer-supported synthesis of steroids, carbohydrates, nucleotides and oligosaccharides)

RN 298228-39-4 HCAPLUS

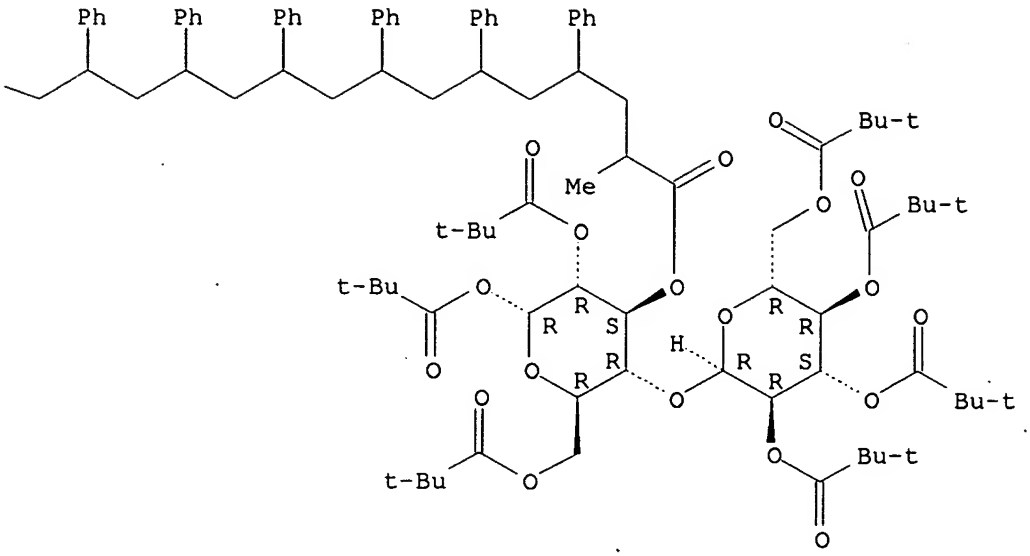
CN .alpha.-D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-.alpha.-D-glucopyranosyl]-, 1,2,6-tris(2,2-dimethylpropanoate) 3-[32-[(ethoxythioxomethyl)thio]-2-methyl-4,6,8,10,12,14,16,18,20,22,24,26,28,30,32-pentadecaphenyldotriacontanoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:468460 HCAPLUS
DOCUMENT NUMBER: 131:92545
TITLE: Carbohydrates, useful in solid delivery systems
INVENTOR(S): Blair, Julian Alexander
PATENT ASSIGNEE(S): Quadrant Holdings Cambridge Limited, UK
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9933853	A2	19990708	WO 1998-GB3888	19981223
WO 9933853	A3	19990930		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6352722	B1	20020305	US 1998-218845	19981222
ZA 9811843	A	19990624	ZA 1998-11843	19981223
CA 2316275	AA	19990708	CA 1998-2316275	19981223

AU 9920629	A1	19990719	AU 1999-20629	19981223
EP 1042339	A2	20001011	EP 1998-965297	19981223
EP 1042339	B1	20030326		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001527087	T2	20011225	JP 2000-526529	19981223
AT 235503	E	20030415	AT 1998-965297	19981223
US 2002058067	A1	20020516	US 2001-4481	20011101

PRIORITY APPLN. INFO.:
US 1997-68754P P 19971223
US 1998-218845 A1 19981222
WO 1998-GB3888 W 19981223

OTHER SOURCE(S): MARPAT 131:92545

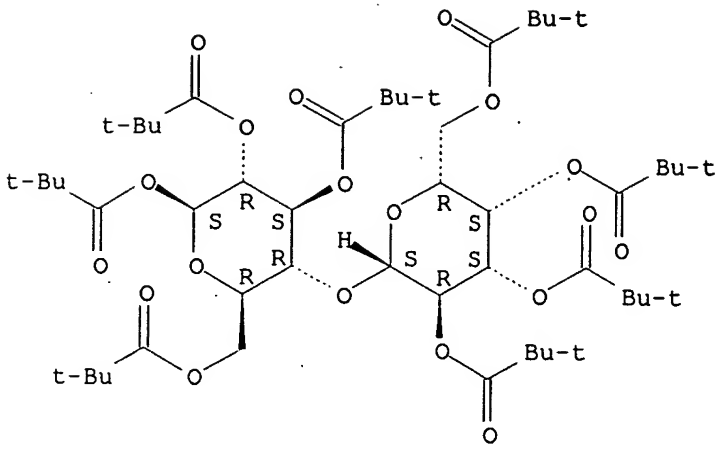
AB Derivatized carbohydrates are provided which can be used to form a variety of materials including solid delivery systems. The derivatized carbohydrates are generally carbohydrates, wherein at least a portion of the hydroxyl groups on the carbohydrate are substituted with a branched hydrophobic chain, such as a hydrocarbon chain, via, for example, an ether or ester linkage. The solid delivery systems can be used for delivery and release of a variety of substances, and are, e.g., in the form of tablets or powders for oral administration, microspheres or implants for i.v., intradermal, transdermal, pulmonary or other routes of administration. The derivatized carbohydrates may be processed to form a solid matrix having a substance, such as a therapeutic agent, incorporated therein. The solid matrix is provided in a solid dose form which is capable of releasing a therapeutic substance in situ at various controlled rates. Thus, a model drug diltiazem-HCl was incorporated into solid vehicles of the straight-chain trehalose octacetate or the branched-chain trehalose octa-3,3-dimethylbutyrate and trehalose octapivalate as well as composite formulations of the 2 carbohydrates. The drug release was much slower from the branched-chain carbohydrate formulation than from the straight-chain formulation.

IT **118649-02-8 229962-37-2**
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbohydrates in solid delivery systems)

RN 118649-02-8 HCAPLUS

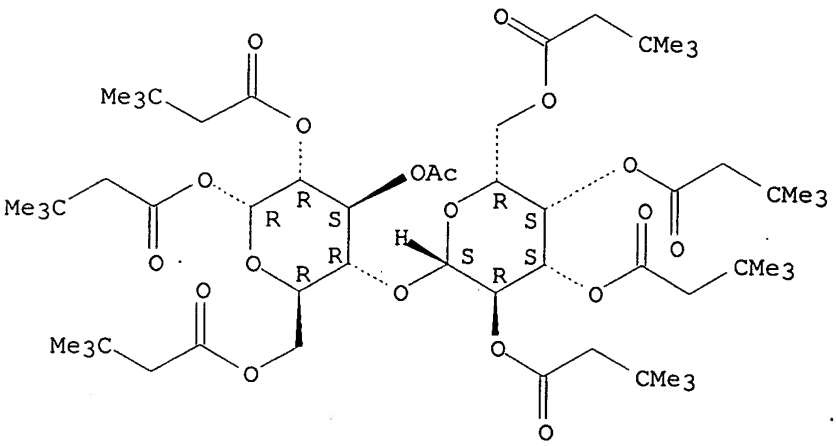
CN .beta.-D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-.beta.-D-galactopyranosyl]-, tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 229962-37-2 HCAPLUS
CN .alpha.-D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(3,3-dimethyl-1-oxobutyl)-.beta.-D-galactopyranosyl]-, 3-acetate 1,2,6-tris(3,3-dimethylbutanoate) (9CI) (CA INDEX NAME)

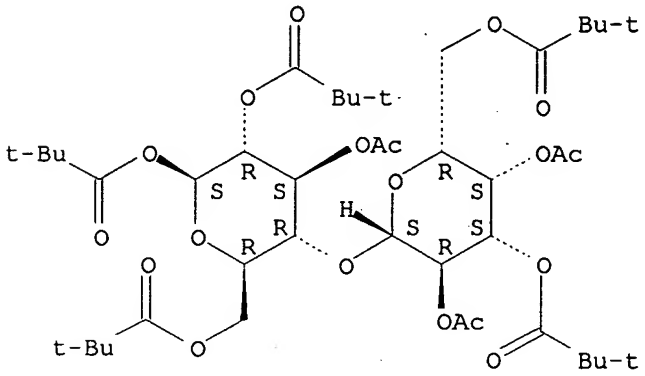
Absolute stereochemistry.



L17 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:12575 HCAPLUS
DOCUMENT NUMBER: 130:139531
TITLE: Use of N-pivaloylimidazole as protective reagent for sugars
AUTHOR(S): Santoyo-Gonzales, Francisco; Uriel, Clara; Calvo-Asin, Jose A.
CORPORATE SOURCE: Inst. Biotecnologia, Fac. Ciencias, Univ. Granada, Granada, E-18071, Spain
SOURCE: Synthesis (1998), (12), 1787-1792
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal

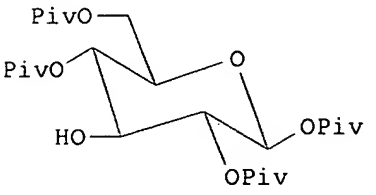
LANGUAGE: English
AB N-pivaloylimidazole was prepd. and used as a selective protective reagent for D-glucose, D-mannose, D-galactose, 2-acetamido-2-deoxy-D-glucose, 2-acetamido-2-deoxy-.beta.-D-glucopyranosyl azide, and lactose. A variety of pivalates were obtained with moderate to good regioselectivity.
IT **220017-59-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(pivaloylimidazole as regioselective protective reagent for sugars)
RN 220017-59-4 HCAPLUS
CN .beta.-D-Glucopyranose, 4-O-[2,4-di-O-acetyl-3,6-bis-O-(2,2-dimethyl-1-oxopropyl)-.beta.-D-galactopyranosyl]-, 3-acetate 1,2,6-tris(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:218305 HCAPLUS
DOCUMENT NUMBER: 120:218305
TITLE: Synthesis and utilization of saccharide intermediates
AUTHOR(S): Becker, D.; Galili, N.
CORPORATE SOURCE: Dep. Chem., Technion-Israel Inst. Technol., Haifa, 32000, Israel
SOURCE: Carbohydrate Research (1993), 248, 129-41
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 120:218305
GI



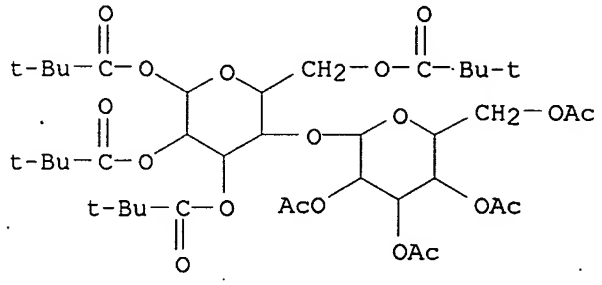
I

AB A new method has been developed for prepn. of partially pivaloylated saccharides, e.g. I, in one step from readily available starting materials. These intermediates were used in the synthesis of disaccharides and a glucosteroid.

IT **144102-42-1P 153527-53-8P 153527-55-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 144102-42-1 HCAPLUS

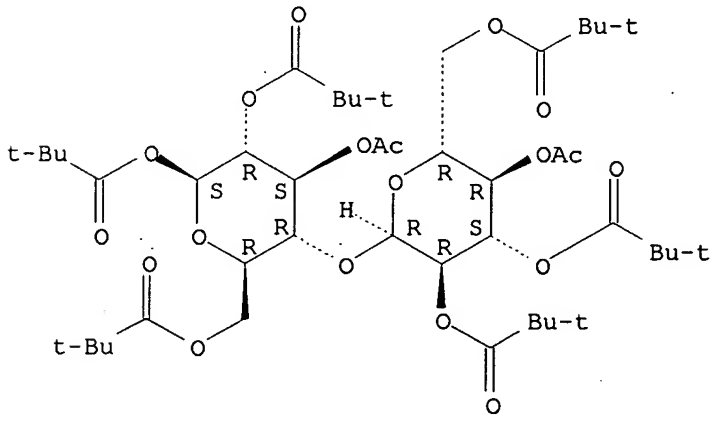
CN .beta.-D-Glucopyranose, 4-O-(2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranosyl)-, tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)



RN 153527-53-8 HCAPLUS

CN .beta.-D-Glucopyranose, 4-O-[4-O-acetyl-2,3,6-tris-O-(2,2-dimethyl-1-oxopropyl)-.alpha.-D-glucopyranosyl]-, 3-acetate 1,2,6-tris(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

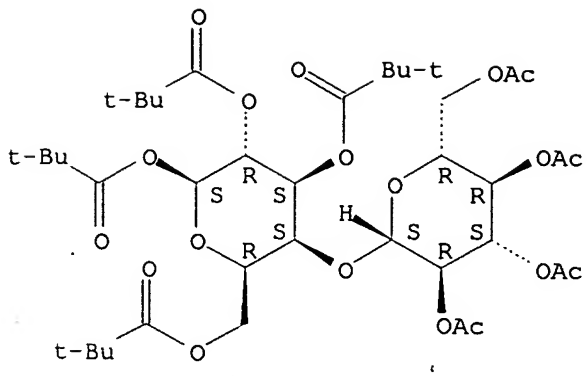
Absolute stereochemistry.



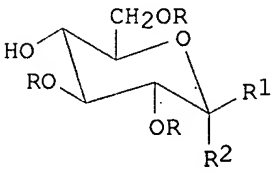
RN 153527-55-0 HCAPLUS

CN .beta.-D-Galactopyranose, 4-O-(2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranosyl)-, tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



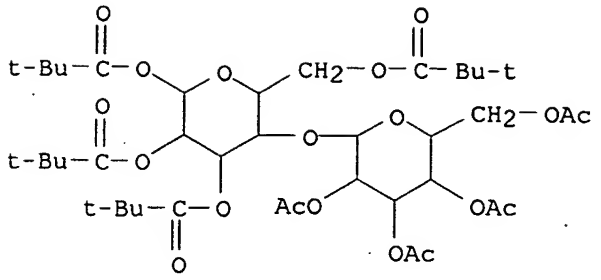
L17 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:612821 HCAPLUS
DOCUMENT NUMBER: 117:212821
TITLE: A novel synthesis of protected glucose intermediates
AUTHOR(S): Becker, D.; Galili, N.
CORPORATE SOURCE: Dep. Chem., Technion-Israel Inst. Technol., Haifa, 32000, Israel
SOURCE: Tetrahedron Letters (1992), 33(33), 4775-8
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 117:212821
GI



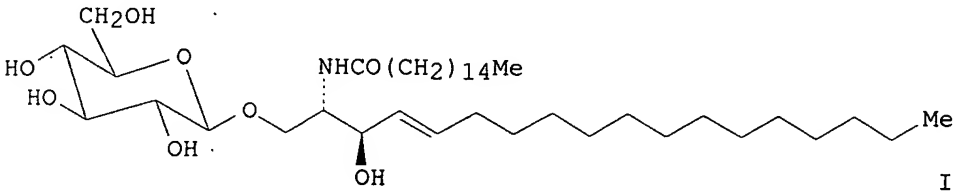
I

AB Tetra-O-pivaloyl-.beta.-D-glucopyranoses,e.g. I (R = pivaloyl, R1 = OR, R2 = H) (II), have been prepd. in one step from anhyd. glucose and pivaloyl chloride. These new intermediates can be converted into the corresponding esters, or used in the synthesis of a disaccharide in good yield. Thus, I (R1R2 = H, OH) can be prepd. from II, and use for prepn. of .beta.-gluco derivs. via the corresponding trichloroacetimidate I [R1 = H, R2 = C(NH)CCl3].

IT **144102-42-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 144102-42-1 HCAPLUS
CN .beta.-D-Glucopyranose, 4-O-(2,3,4,6-tetra-O-acetyl-.beta.-D-glucopyranosyl)-, tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)



L17 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:75911 HCAPLUS
DOCUMENT NUMBER: 110:75911
TITLE: Glycosylimidates. Part 33. Azidosphinogosine glycosylation in glycosphingolipid synthesis
AUTHOR(S): Zimmermann, Peter; Bommer, Rene; Bare, Thomas; Schmidt, Richard R.
CORPORATE SOURCE: Fak. Chem., Univ. Konstanz, Konstanz, D-7750, Fed. Rep. Ger.
SOURCE: Journal of Carbohydrate Chemistry (1988), 7(2), 435-52
CODEN: JCACDM; ISSN: 0732-8303
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:75911
GI



AB The 3-O-protected azide derivs. of C18-sphingosine reacted with O-acyl protected trichloroacetimidates of D-glucose, D-galactose, and lactose to afford the corresponding .beta.-glycosides in high yields. Ortho-ester formation in the case of O-acetyl compd. could be avoided by increasing the amt. of BF3.Et2O catalyst. Deprotection and azido group redn. provided the psychosines of D-glucose, D-galactose, and lactose, which are versatile intermediates for the attachment of different fatty acid residues. With hexadecanoyl chloride, for instance, the corresponding glycosphingolipids, e.g., I, were obtained.

IT **118649-02-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and removal of 1-pivaloyl group from)

RN 118649-02-8 HCAPLUS

CN .beta.-D-Glucopyranose, 4-O-[2,3,4,6-tetrakis-O-(2,2-dimethyl-1-oxopropyl)-.beta.-D-galactopyranosyl]-, tetrakis(2,2-dimethylpropanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.